Foundational Work at 10 Toronto

This issue's SWA's Members in Action spotlight falls on Macdero Construction, DRE Industries (Koster), and RJC Engineers, who united to waterproof the rubble foundation wall at the historic 10 Toronto Street Building.

The 14,000 sq. ft. structure was built in 1853 to serve as Toronto's seventh post office. It then housed offices for Revenue Canada and the Bank of Canada until 1959, when it became the headquarters of the Argus Corporation, an investment and holding company helmed by Edward Plunkett Taylor that controlled companies such as Massey-Ferguson, Canadian Breweries Ltd and Domtar. In the 1970s, Conrad Black took over Argus and transformed it into Hollinger International. Over the following years, the office building was eventually designated a National Historic Site of Canada.

It's an iconic location, to say the least, and one which required careful planning and strategies to deliver on its waterproofing mandate while preserving the site's historical significance. "Rubble walls have become prized architectural features for businesses and places of worship seeking to preserve a sense of historical character often lost in modern construction," explains Chris Berner, Injection Manager with Macdero. "Since many of these walls have been repurposed, it is crucial to carry out any work with the utmost care, ensuring that the final result appears untouched. That's why our crews meticulously adjusted drilling patterns, regulated pump pressures, and controlled overspray from water and gel injections, guaranteeing a seamless waterproof barrier on the positive side – all while maintaining the wall's original aesthetic."

The building's downtown core location meant excavation was not a viable option, as it would have completely blocked the building's parking and fire route. Because of

this, and to minimize disruptions to regular building activities, the team implemented a less invasive curtain injection method using KOSTER S4 Gel, a curtain injection product predominately used when there is active water present due to the fact it quickly seals joints and has an adjustable curing time that is dependant on the amount of A2 or B component added. "By using this product, we could confidently ensure a durable and effective waterproofing solution that adapted to the site's specific conditions, which gave us the ability to control the curing time for a precise application," Berner explains.

Performing meticulous work at an iconic location was a worthy challenge for Macdero and their project partners. Fortunately, says the firm, they were joined by a skilled team who possessed a deep appreciation for the building's historical significance and a shared commitment to maintaining the original rubble wall aesthetic.

"The success of this project was driven by strong collaboration between the consultant (RJC), the manufacturer (DRE Industries), and Macdero's extensive experience in completing similar curtain injection projects," says Berner.

As for the significance of the project, the team was successful in preserving both the original materials while reinforcing the wall and ensuring it could withstand future environmental stresses such as freeze-thaw damage and ongoing moisture infiltration, which could lead to further deterioration. Ultimately, says Berner, "Our KOSTER Curtain Injection solution provided the client with a non-invasive, long-term defence against water ingress, giving the owner and future occupants a dry, usable space for years to come."